**Editorial Division**

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**AMS-MAA Book Submission Form**

*Working title:* Alexandrov geometry: foundations

*Expected completion date: it is ready*

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*Previous books by Authors (including year, title, publisher):*

*An invitation to Alexandrov geometry. CAT(0) spaces. SpringerBriefs in Mathematics. Springer, Cham, 2019*

*Mathematics Subject Classification for this book:*

53C23, 53C45, 30L99

*1. Authors’ brief description of contents, style etc. of this book:*

It is a reference source for Alexandrov geometry up to the definition of dimension. It can be also used as a suplementary book for a course in Alexanrov geometry.

*2. Who will read this book? Please describe the audience in detail.*

*Designed for anyone who work in Alexandrov geometry.*

*3. What are the prerequisites for the potential reader?*

*Interest in the subject + mathematical maturity.*

*4. Note the features of the book that will appeal specifically to this audience* ***and*** *distinguish it from other books on the market. (Please include Feature and Benefit (why it is useful).)*

|  |  |
| --- | --- |
| **FEATURE** | **BENEFIT** |
| A comprehensive exposition of the structure theory of Alexandrov spaces with curvature bounded above and below. | Provides a single reference source for nearly all results in the subject up to definition of dimension. |
| Results and proofs that have not appeared elsewhere. |  |
| Extensive problem list with solutions indicated for every problem. | Expands the scope of the book |
|  |  |

*5. If this is a revision, please list the most important changes and updates from the previous edition:*

*6. List below the major competitive titles for your book and compare them with your book. For each competitor, please include: Author(s), Title, Edition, Year Published, Publisher, Number of pages, strengths, and weaknesses.*

|  |  |  |
| --- | --- | --- |
| **Author, Title, Edition, Pub Date, Publisher, Page count** | **Strengths** | **Weaknesses** |
| Metric spaces of non-positive curvature. 1999, Springer-Verlag, Berlin, xxii+643 | This is a very good book close to the subject of our book. It is not truly competitive since it only considers half our subject material, curvature bounded above but not curvature bounded below. Aimed at geometric group theory, it considers different topics in curvature bounded above. |  |
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*7. Please list at least three recognized authorities on the book's subject matter whom you believe might be willing to review and comment on the project:*

W. Ballmann, B. Bowditch, S. Ivanov, B. Kleiner, U. Lang, A. Lytchak, B. Wilking.

*8. Which AMS book series (see https://bookstore.ams.org/book-series) would you consider the most appropriate for your book and why?*

Graduate Studies in Mathematics --- this book gives a comprehensive introduction to the field. It could be used as a supplementary text for any course in Alexandrov geometry.

*9. If possible, please provide 5-10 key words or phrases that are not included in the title of your book. These should be words and/or phrases which scholars and instructors would use to find your book’s topic online. The purpose of identifying these words will be to help your titles rise to the top in online search results.*

*1. CAT(0) 6. dimension of Alexandrov spaces*

*2. Kirszbraun 7. lower curvature bounds*

*3. warped products 8. upper curvature bounds*

*4. polyhedral spaces 9. CAT(K)*

*5. gradient flow 10. Metric geometry*

**Thank you for your assistance in providing this valuable information.**